



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Republic of Korea Update

40th IPHE Steering Committee Meeting

4 – 5 October 2023

Washington DC, United States

Announcements / New Initiatives *Republic of Korea*

• Investments/Funding/Policies/Initiatives

1. Rule Making on **Clean Hydrogen Certification Mechanism** (ongoing)
 - Proposed threshold: < 4kgCO₂eq/kgH₂ (well-to-gate)
 - Transportation (international shipping) emissions: temporarily not counted
 - Accounting methodologies for production
 - Due to open in January 2024

2. Auction for first batch of **Clean Hydrogen Portfolio Standard** (August 2023)
 - 715 GWh, a half of annual quota (1.3 TWh), awarded to 5 fuel cell power generation businesses
 - Only general section (unabated grey hydrogen eligible) opened this year
 - Results shows lowered prices, more distributed power near demand centers, as intended
 - Winners of the other half to be called in November
 - Clean hydrogen section (3.5 TWh) to be opened in 2024 along with general (1.3 TWh) section

Announcements / New Initiatives *Republic of Korea*

• New Research & Development, Demonstration and/or Deployment Activities

1. Fuel cell bus deployment in major cities (June 2023)
 - City of Seoul plans to deploy 1,300 FC buses by 2026, first replacing airport-route buses running on diesel
 - In April, city of Incheon (130 units) and other cities/provinces received grant for FC bus purchase (400 units in total)
2. First HRS for construction/industrial equipment (September 2023)
 - MOTIE embarked on deregulation process for similar HRS for heavy equipment

• Key Collaborations

N/A

• Other

N/A

Examples of Lessons Learned and Impact *Republic of Korea*



Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
<ul style="list-style-type: none"> • Due to the Russo-Ukraine crisis, the domestic petrochemical industry reduced production of by-product hydrogen • Supply disruption in some regions led to shortage of hydrogen for Korea’s huge FCEV fleet in August ’22 • Mobility hydrogen supply consultation body was activated last February to facilitate cooperation between public and private sector over stable hydrogen supply • Other supply security measures were taken such as small to medium-sized regional-hub hydrogen production facilities, liquefaction plants in strategic cities, etc. 	<ul style="list-style-type: none"> • Importance of hydrogen supply and demand management • Necessity of establishing a stable hydrogen supply chain • Diversification of hydrogen production and supply channel based on close stakeholder cooperation • Transition from a hydrogen supply chain focused on by-product hydrogen to a hydrogen supply chain of various production channels • Enhancing capacity of hydrogen stockpiling (e.g. liquid hydrogen, hydrogen pipeline etc.)



Republic of Korea – Profile October 2023

Status of Deployments (June 2023)

- ✓ Stationary FC: **930MW**
- ✓ FCEV: **32,484**
- ✓ FC Bus: **342**
- ✓ HRS: **181**

Leading Government Initiatives

3-Up* policy package

* Scale-up, Build-up, Level-up

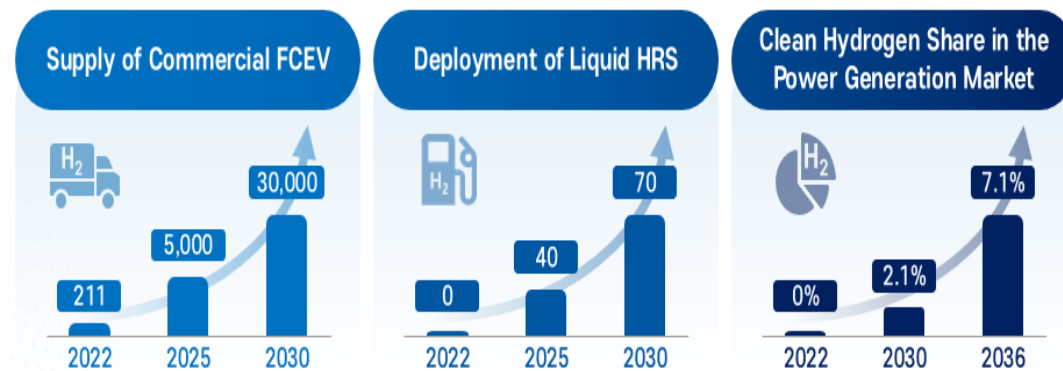
backed by

Hydrogen Economy Promotion and Hydrogen Safety Management Law (Feb. '20)

Goals or Focus Areas

- Huge demand creation
- Demand-based **distribution infrastructure**
- Clean hydrogen **supply chain** establishment
- Institutional foundation for **hydrogen market**

Deployment Goals



Funding

- **Mobility subsidy** budget: 850B KRW (634M USD)
- **Clean hydrogen R&D** budget: 25.9B KRW (19.3M USD)

Thank you



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